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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,989	06/11/2004	Yui-Shin Fran	12960-US-PA	3988
31561	7590	04/05/2006	EXAMINER	
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			WON, BUMSUK	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,989

Applicant(s)

FRAN ET AL.

Examiner

Bumsuk Won

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application..
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Species I in the reply filed on 3/7/2006 is acknowledged. The traversal is on the ground(s) that Species I and II are not distinct because both species include some features such as "first light emitting areas" and "second light emitting areas". This is not found persuasive because the features such as "first light emitting areas" and "second light emitting areas" in Species I are by-product of electrode pair structures, whereas in Species II, those features are used to change the driving scheme of the driving method. Also, the structure of Species I can be driven without alternating the first and second light emitting areas as claimed in Species II, such as driving both light emitting areas simultaneously. The requirement is still deemed proper and is therefore made FINAL.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a plurality of first electrode pairs, disposed over an outer wall of the cavity" and "a plurality

of second electrode pairs, disposed over an outer wall of the cavity” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claims 4 and 5, “the first light emitting areas”

and “the second light emitting areas” are not defined. If the light emitting area is defined as the area where the light is emitted by certain anode/cathode pair, and they are either not overlapped or not completely overlapped, the light emitted by pairs of anode/cathode will not generate light outside of the cavity, therefore, claims 4 and 5 does not serve the purpose of emitting light as a back light device, for example. Conversely, if the claimed device serve the purpose of emitting light as a back light device, for example, the light emitted by each anode/cathode pair will have large light emitting area that covers many other light emitting areas emitted by other anode/cathode pairs. Appropriate action is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

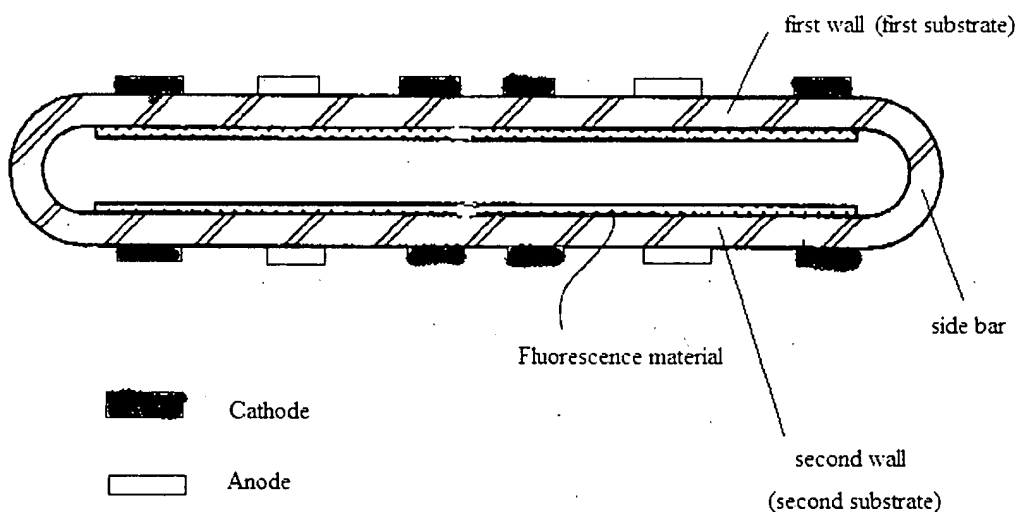
Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishiyama (US 6,331,064).

Regarding claim 1, Nishiyama discloses a cold cathode fluorescent lamp (figure 8A), comprising: a cavity (35), comprising a first inner wall (top portion) and a second inner wall (bottom portion) disposed opposite to the first inner wall; a fluorescence material (35q) disposed over the first and the second inner wall; a discharge gas (column 6, lines 11-14) disposed inside the cavity; a first electrode pairs (35c and 35d, top part) disposed over an outer wall of the cavity, wherein each of the first electrode pairs comprises a first anode (top part of 35c) and a first cathode (top part of 35d); and a second electrode pairs (35c and 35d, bottom part) disposed over an outer wall of the cavity, wherein each of the second electrode pairs comprises a second anode (bottom part of 35c) and a second cathode (bottom part of 35d) (see figure *Section view of figure 8A (Nishiyama)* for more detail).

The claim limitations “a first light emitting area is constructed between the first anode and the first cathode of each of the first electrode pairs” and “a second light emitting area is constructed between the second anode and the second cathode of each of the second electrode pairs” are by-product of having disclosed anodes and cathodes being energized with voltage potential, therefore, the structure of the prior art has the above claim limitations.

Regarding claim 2, Nishiyama discloses the cavity (35) comprises: a first substrate (top portion); a second substrate (bottom portion) disposed over the first substrate; and a side bar (both right and left end portion) disposed between the first substrate and the second substrate, and the side bar is connected to an edge of the first substrate and an edge of the second substrate (see figure *Section view of figure 8A (Nishiyama)* for more detail).

Section view of figure 8A (Nishiyama)



Regarding claim 3, Nishiyama discloses the first electrode pairs (figures 6A and 8A, 35c, 35d, top part) are disposed over the first substrate (top portion of 35), and the second electrode pairs (figures 6A and 8A, 35c, 35d, bottom part) are

disposed over the second substrate (bottom portion of 35) (see figure *Section view of figure 8A (Nishiyama)* for more detail).

Regarding claims 6 and 7, Nishiyama discloses anodes (figure 8A, 35c) and cathodes (35d) being arranged in a sequence in an order of anode, cathode, cathode, anode (middle 4 electrodes meets the claimed sequence) (see figure *Section view of figure 8A (Nishiyama)* for more detail).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoo (US 2003/0132711).

Regarding claim 13, Yoo discloses a CCFFL (figures 3 and 4), comprising: a cavity (not referenced); a discharge gas (400) disposed over an inner wall of the cavity; a fluorescence material (110) disposed over an inner wall of the cavity;

electrode pairs (260a and 260b) disposed over the inner wall of the cavity, and the electrode pair comprises first protrusions (266a) and second protrusions (266b) disposed opposite to the first protrusions, wherein the first protrusions and the second protrusions are not aligned (there are some that are aligned, however, one of first protrusion is not aligned with all of the second protrusions).

Regarding claim 14, Yoo discloses the first (266a) and the second protrusions (266b) are arranged at equal distance, and the interval of the first and the second protrusions are equal (figure 4).

Regarding claim 15, Yoo discloses one of the first protrusion (266a, the second protrusion from the left) is aligned at a midpoint (266b, the second protrusion from the left) of two of the second protrusions (266b, the first and the third protrusion from the left).

Regarding claim 16, Yoo discloses the cavity comprises: a first substrate (figure 3, 100); a second substrate (200) disposed over the first substrate; and a side bar (not referenced) disposed between the first and the second substrate, and the side bar is connected to an edge of the first and the second substrate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiyama (US 6,331,064) in view of Yoo (2003/0132711).

Nishiyama discloses all of the claimed limitations except for the anodes or cathodes comprising protrusions.

Yoo discloses a cold cathode fluorescent flat lamp (figure 4) having anodes (260a) and cathodes (260b) with protrusions (266), for the purpose of improving the discharge efficiency (paragraph 31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have anodes and cathodes with protrusions disclosed by Yoo in the lamp disclosed by Nishiyama, for the purpose of improving the discharge efficiency.

Contact information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bumsuk Won
Patent Examiner



JOSEPH WILLIAMS
PRIMARY EXAMINER